REMARKS

Claims 1-50 are currently pending. In the October 31, 2008, Office Action, claim 1-12 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter; claim 40 was rejected as being indefinite; claims 1-34 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2001/0001877 to French (hereinafter "French"); claims 35-50 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,502,213 to Bowman-Amuah (hereinafter "Bowman"). As explained more fully below, Applicants respectfully traverse the rejections for the reasons set forth hereinbelow.

A. Claims 1-12 Recite Statutory Subject Matter

Regarding the "non-statutory subject matter" rejection, Applicants respectfully submit that the claims were erroneously rejected because the Examiner applied the incorrect legal standard for determining eligibility under 35 U.S.C. § 101. In particular, the Examiner asserted that "because none of the elements or features of the claimed apparatus are necessarily implemented in hardware, the claims appear to be directed to an arrangement of software per se. The claims are not directed to a process, a machine, manufacture, nor composition of matter within the meaning of 101 and therefore they are directed to non-statutory subject matter." *See*, Office Action, pp. 3-4. However, the idea that software is "per se" unpatentable has been expressly rejected by the Federal Circuit decision in re Bilski, which held that "machine-or-transformation" test as the sole test for subject matter eligibility form a claimed process. In so holding, the Federal Circuit expressly stated that:

> **we decline to adopt a broad exclusion over software or any other such category of subject matter beyond the exclusion of claims drawn to fundamental principles set forth by the Supreme Court**. See, e.g., Br. of Amicus Curiae End Software Patents; Br. of Amicus Curiae Red Hat, Inc. at 4-7. We also note that the process claim at issue in this appeal is not, in any event, a software claim. **Thus, the facts here would be largely unhelpful in illuminating the distinctions between those software claims that are patent-eligible and those that are not**.

In re Bilski , No. 07-1130, pp. 21-22, n. 23 (boldfaced emphasis added). As the quoted language above shows, there is no "per se" rule against software claims being patent eligible. To the extent that the Examiner fails to provide any analysis to illuminate why claims 1-12 are not patent eligible, but instead recites without any support the conclusory prohibition against "software per se," Applicants respectfully submit that the Examiner has failed to make out a *prima facie* case of unpatentability. In re Oetiker, 977 F.2d 1443, 1445 (Fed. Cir. 1992) ("[T]he

examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a prima facie case of unpatentability.").

If there is an attempt by the Examiner to (improperly) invoke In re Bilski's "machine-or-transformation" test for "process" claims here, Applicants would note that the Bilski test is intended to prevent a process claim that recites a fundamental principle that would pre-empt substantially all uses of that fundamental principle if allowed. Applicants respectfully submit that claims 1-12 recite an "apparatus," and are not "process" claims. Applicants submit further that there is no "fundamental principal" recited by Applicants' claims because Applicants have not claimed "laws of nature, natural phenomenon, and abstract ideas." In re Bilski , No. 07-1130, p. 7, n. 5 ("As used in this opinion, 'fundamental principles' means 'laws of nature, natural phenomena, and abstract ideas.'"). Rather than reciting a "fundamental principal," Applicants have claimed an apparatus for implementing a request relating to a digital certificate in a distributed processing system, where the "apparatus" includes request implementation software (which is instantiated in a real time executable object-oriented language that implements a response to the request regarding the digital certificate in response to a propagated event object), a reception bean (that is communicatively coupled to the request implementation software and the distributed processing system to generate an event object in response to receiving the request to generate a digital certificate from the distributed processing system) and a two-way bean (that is communicatively coupled to the request implementation software and the distributed processing system, and that generates a second event object depending on whether a request to the two-way bean is received in a forward flow or reverse flow direction). *See*, claim 1.

In reciting an "*apparatus* for implementing a request regarding a digital certificate in a distributed processing system," Applicants respectfully submit that the claims meet the "machine-or-transformation" patent-eligibility test because the claimed invention is explicitly tied to a particular machine or apparatus, thereby meeting the first prong of the "machine-or-transformation" test. *See*, claim 1 ("An apparatus for implementing a request regarding a digital certificate in a distributed processing system, the apparatus comprising: a request implementation software …; at least one reception bean, communicatively coupled to the request implementation software and the distributed processing system,…; and at least one two-way bean …; where the request implementation software is instantiated in a real time executable object-oriented language."). On this point, Applicants would further note that the Federal Circuit

specifically explained that "electronic signals and electronically-manipulated data" can meet the "machine-or-transformation" test if the claim specifies a particular type or nature of data, or how or from where the data was obtained or what the data represented. In re Bilski , No. 07-1130, p. 25. Referring to the Abele decision, the Federal Circuit explained further that a claim can be drawn to patent-eligible subject matter where "the data clearly represented physical and tangible objects." Id., p. 26 ("We further note for clarity that the electronic transformation of the data itself into a visual depiction in Abele was sufficient; the claim was not required to involve any transformation of the underlying physical object that the data represented."). Thus, Applicants submit that second prong of the "machine-or-transformation" test is met because the claimed invention expressly recites the transformation of specifically enumerated data that clearly represents physical and tangible objects, namely the "response to a propagated event" and the "event object" that is generated "in response to receiving the request to generate a digital certificate," and the "second event object" that is generated "depending on whether a request to the two-way bean is received in a forward flow or reverse flow direction." *See*, In re Bilski , No. 07-1130, p. 26 (Describing Abele case holding that claims which specified data which represented physical and tangible objects are drawn to patent-eligible subject matter.).

Based on the foregoing, Applicants respectfully submit that the pending claims are drawn to patent-eligible subject matter since a *prima facie* case has not made to show that Applicants' apparatus claims that are not patent-eligible. In re Bilski , No. 07-1130, p. 26 ("In contrast, we held one of Abele's dependent claims to be drawn to patent-eligible subject matter where it specified that 'said data is X-ray attenuation data produced in a two dimensional field by a computed tomography scanner.' Abele, 684 F.2d at 908-09. This data clearly represented physical and tangible objects, namely the structure of bones, organs, and other body tissues."). Accordingly, Applicants respectfully request that the statutory subject matter rejection of claims 1-12 under 35 U.S.C. § 101 be withdrawn and that the claims be allowed.

B. Claim 40 Particularly Points Out and Distinctly Claims The Claimed Subject Matter

Applicants have amended claim 40, and respectfully submit that the indefiniteness rejection is now moot. Accordingly, Applicants request that the rejection of claim 40 be withdrawn and that the claim be allowed.

C. Claims 1-34 Are Not Anticipated by French

In response to the Examiner's rejection of claims 1-34 as being anticipated by French, Applicants respectfully request reconsideration and withdrawal of the rejection because French's disclosure of a network authentication system does not anticipate the present invention's scheme for using a two-way bean that generates an event object depending on whether a request to the two-way bean is received in a forward flow or reverse flow direction. *See,* claims 1, 13, and 24.

In particular, the invention recited in independent claims 1, 13 and 24 (and the associated dependent claims) is directed to a particular software architecture for implementing functionality relating to digital certificates by using a reception bean (that responds to a request to generate a digital certificate from the distributed processing system by generating a reception event object that is propagated to request implementation software) and a two-way bean (that generates a second event object depending on whether a request to the two-way bean is received in a forward flow or reverse flow direction). However, the claim rejections completely ignore the specific language in the claims that recite these software architectural features.

The rejection of independent claims 1, 13 and 24 states that the recited "reception bean" feature is found in French at Figures 37-41 and paragraphs 19-20, 66-69, 145-147, 153-155, 159-162, and 173-174. Office Action, p. 9. But none of the cited passages discloses a "two-way bean that generates a second event object depending on whether a request to the two-way bean is received in a forward flow or reverse flow direction." As described by Applicants:

> The two-way nature of the beans allows for further adaptability. In this case, for example, the generator bean 380 receives a request from the publisher bean 370. Upon the generation of a certificate by the generation bean 380, the request may be sent back to the publisher bean 370. Only upon the successful return of the request from the generation bean 380 will be publisher bean 370 publish the results of the successful generation of the certificate in the LDAP directory structure 373.

See, Application, paragraph 77. At best, the referenced passages from French relate to preprocessing steps of preliminary procedures, such as formatting verification, that occur before the hierarchy of authentication levels, and there is no teaching or suggestion of selectively implementing a response to the request regarding the digital certificate in response to a propagated event object in a two-way bean of a request implementation software, where the two-way bean generates a second event object depending on whether the propagated event object is received in a forward flow or reverse flow direction at the two-way bean. *See*, claims 13-34.

Since French fails to disclose or suggest a "reception bean" to generate event objects and a "two-way bean" to generate a second event object depending on whether the propagated event object is received in a forward flow or reverse flow direction at the two-way bean (as variously recited in claims 1-34), Applicants request reconsideration and withdrawal of the rejection because the Examiner has not made the *prima facie* anticipation showing that each and every element of the claimed invention, arranged as required by claims 1-34, are found in the French reference, either expressly or under the principles of inherency. *See generally*, In re King, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986); Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984). For at least the foregoing reasons, Applicants respectfully request that the anticipation rejection of claims 1-34 be withdrawn and that the claims be allowed.

D. Claims 35-50 Are Not Anticipated by Bowman

In response to the Examiner's rejection of claims 35-50 as being anticipated by Bowman, Applicants respectfully request reconsideration and withdrawal of the rejection because Bowman's disclosure of an object request broker service based on COM/DCOM and CORBA and javabeans does not anticipate the present invention's scheme for using a two-way bean that generates an event object depending on whether a request to the two-way bean is received in a forward flow or reverse flow direction. *See, e.g.*, claims 35 and 44.

In particular, the invention recited in independent claims 35 and 44 (and the associated dependent claims) is directed to an apparatus for implementing a PKI schema by using beans that respond to propagated events for implementing functionality related to public key infrastructure, including a pipe bean (that propagates an event to other beans) and a two-way bean (that generates a second event object depending on whether a request to the two-way bean is received in a forward flow or reverse flow direction). However, the claim rejections completely ignore the specific language in the claims that recite these features.

The rejection of independent claim 35 states that the recited "plurality of beans" and "pipe bean" features are found in Bowman at column 104, column 76 (lines 1-45), and column 196, line 19 to column 198, line 50. Office Action, p. 5. In addition, the rejection of independent claim 44 states that the recited "plurality of beans" and "subclassing" features are found in Bowman at column 104, column 76 (lines 1-45), and column 107, lines 1-44. Office Action, p. 7. But none of the cited passages discloses a "two-way bean that generates a second

event object depending on whether a request to the two-way bean is received in a forward flow or reverse flow direction." As described by Applicants:

> The two-way nature of the beans allows for further adaptability. In this case, for example, the generator bean 380 receives a request from the publisher bean 370. Upon the generation of a certificate by the generation bean 380, the request may be sent back to the publisher bean 370. Only upon the successful return of the request from the generation bean 380 will be publisher bean 370 publish the results of the successful generation of the certificate in the LDAP directory structure 373.

See, Application, paragraph 77. At best, the referenced passages from Bowman relate to a filter operation which is certainly a one-way operation, and there is no teaching or suggestion of a PKI apparatus which includes at least one of the plurality of beans comprising a two-way bean that generates a second event object depending on whether a request to the two-way bean is received in a forward flow or reverse flow direction. *See*, claims 35-50.

Since Bowman fails to disclose or suggest a "plurality of beans" that are communicatively coupled to one another and responsive to events generated by the plurality of beans, and a "two-way bean" to generate a second event object depending on whether the propagated event object is received in a forward flow or reverse flow direction at the two-way bean (as variously recited in claims 35-50), Applicants request reconsideration and withdrawal of the rejection because the Examiner has not made the *prima facie* anticipation showing that each and every element of the claimed invention, arranged as required by claims 35-50, are found in the Bowman reference, either expressly or under the principles of inherency. *See generally*, In re King, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986); Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984). For at least the foregoing reasons, Applicants respectfully request that the anticipation rejection of claims 35-50 be withdrawn and that the claims be allowed.

CONCLUSION

In view of the amendments and remarks set forth herein, Applicants respectfully submit that all pending claims are in condition for allowance and request that a Notice of Allowance be issued. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the examiner is requested to telephone the undersigned at 512-338-9100.

CERTIFICATE OF TRANSMISSION

I hereby certify that on March 31, 2009, this correspondence is being transmitted via the U.S. Patent & Trademark Office's electronic filing system.

/Michael Rocco Cannatti/

Respectfully submitted,

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